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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

JEFFREY S. WEAVER   HP Docket No. 10006354-1

Serial No.   :   09/940,359   Examiner K. Emdadi

Filed   :   August 27, 2001   Group Art Unit 2667

For   :   SYSTEM AND METHOD FOR THE
                    CONSOLIDATION OF DATA PACKETS

Commissioner for Patents
P. O. Box 1450
Alexandria, Virginia 22313-1450

S i r :

DECLARATION UNDER § 1.131

I declare as follows:

1.   I am an inventor who, on August 27, 2001, filed the above-identified application. At the time of such invention, I was an employee of Hewlett-Packard Company.

2.   Prior to June 28, 2001, the effective date of the application that resulted in U.S. Patent Application Publication No. US 2004/0114516 A1, I conceived of my invention, and diligently worked toward reducing my invention to practice, as demonstrated by the Invention Disclosure attached to this declaration.

3.   Invention Disclosure 10006354 (which has a descriptive title "VoIP Packet Consolidation") is attached hereto as Exhibit 1. As indicated, Invention Disclosure 10006354 was prepared at least as early as August 4, 2000 (a date which predates the June 28, 2001 effective date of U.S. Patent Application Publication No. US 2004/0114516 A1.

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4.   At the time of preparing Exhibit 1, I had conceived a method of optimizing the transmission of a plurality of data packets across a data network at a network traffic device, each of the plurality of packets having a next-hop address, the method comprising: receiving the data packets at the network traffic device, including checking whether the next-hop address for each data packet is a local next-hop address, and forwarding packets with the local next-hop address to the local next-hop address without consolidation; buffering the data packets; identifying a first data packet; identifying a second data packet with the same next-hop address as the first data packet; consolidating the first data packet with the second data packet to form a consolidated packet; and transmitting the consolidated data packet.

5.   I also had conceived a method of optimizing the transmission of a plurality of data packets across a data network at a network traffic device, each of the plurality of packets having a next-hop address and a final destination address, the method comprising: receiving the data packets at the network traffic device; buffering the data packets, wherein buffering the data packets includes sorting the packets by final destination address for storage in a plurality of buffers; identifying a first data packet; identifying a second data packet with the same next-hop address as the first data packet; consolidating the first data packet with the second data packet to form a consolidated packet; and transmitting the consolidated data packet.

6.   I also had conceived a method of optimizing the transmission of a plurality of data packets across a data network at a network traffic device, each of the plurality of packets having a next-hop address, the method comprising: receiving the data packets at the network traffic device; buffering the data packets, wherein buffering the data packets includes sorting the data packets by next-hop address for

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storage in a plurality of buffers; identifying a first data packet; identifying a second data packet with the same next-hop address as the first data packet; consolidating the first data packet with the second data packet to form a consolidated packet; and transmitting the consolidated data packet.

7.   I also had conceived a method of optimizing the transmission of a plurality of data packets across a data network at a network traffic device, each of the plurality of packets having a next-hop address, the method comprising: receiving the data packets at the network traffic device, wherein selected data packets have a priority flag; buffering the data packets, and wherein buffering the data packets includes sorting the data packets by presence of the priority flag; identifying a first data packet; identifying a second data packet with the same next-hop address as the first data packet; consolidating the first data packet with the second data packet to form a consolidated packet; and transmitting the consolidated data packet.

8.   I also had conceived a method of optimizing the transmission of a plurality of data packets across a data network at a network traffic device, each of the plurality of data packets having a next-hop address, the method comprising: generating the plurality of voice data packets; tagging each of the voice data packets with a tag identifying the data packet as a voice data packet at a gateway; sending the voice data packets over the network from the gateway; receiving the data packets at the network traffic device; buffering the data packets, wherein buffering the data packets includes storing data packets with the tag in separate buffers from data packets without the tag; identifying a first data packet; identifying a second data packet with the same next-hop address as the first data packet; consolidating the

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first data packet with the second data packet to form a consolidated packet; and transmitting the consolidated data packet.

9.   I also had conceived a method of optimizing the transmission of a plurality of data packets across a data network at a network traffic device, each of the plurality of data packets having a next-hop address, the method comprising: generating the plurality of voice data packets; tagging each of the voice data packets with a tag identifying the data packet as a voice data packet at a gateway; sending the voice data packets over the network from the gateway; receiving the data packets at the network traffic device; buffering the data packets; identifying a first data packet, wherein identifying the first data packet includes identifying the first data packet by presence of the tag; identifying a second data packet with the same next-hop address as the first data packet; consolidating the first data packet with the second data packet to form a consolidated packet; and transmitting the consolidated data packet.

10.   I also had conceived a network traffic forwarding system configured to optimize flow of data packets across a data network, the data packets each having a next-hop address, the forwarding system comprising: a plurality of network interface ports configured to be connected to the network to send and receive data packets; memory configured for buffering received packets, wherein the memory is divided into a plurality of buffers; and a processor configured to sort received data packets into the plurality of buffers by next-hop address, and upon receipt of a first data packet by one of the plurality of network interface ports, to identify a second data packet buffered in the memory with the same next-hop address as the first data

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packet, and to consolidate the first data packet and the second data packet to form a consolidated packet for transmission across the network.

11.   I also had conceived a network traffic forwarding system configured to optimize flow of data packets across a data network, the data packets each having a next-hop address, the forwarding system comprising: a plurality of network interface ports configured to be connected to the network to send and receive data packets; memory configured for buffering received packets; and a processor configured, upon receipt of a first data packet by one of the plurality of network interface ports, to identify a second data packet buffered in the memory with the same next-hop address as the first data packet, and to consolidate the first data packet and the second data packet to form a consolidated packet for transmission across the network, wherein the processor is further configured to determine whether the next-hop address of the selected data packet is a local address, and if it is a local address, then not to identify a second data packet.

12.   I also had conceived a network traffic forwarding system configured to optimize flow of data packets across a data network, the data packets each having a next-hop address, the forwarding system comprising: a plurality of network interface ports configured to be connected to the network to send and receive data packets; and memory configured for buffering received packets; and a processor configured to check the selected packet for an indicator contained within the packet indicating that the packet is to be consolidated, and upon receipt of a first data packet by one of the plurality of network interface ports, to identify a second data packet buffered in the memory with the same next-hop address as the first data packet, and to

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consolidate the first data packet and the second data packet to form a consolidated packet for transmission across the network.

13.   Following my conception prior to June 28, 2001, I diligently worked toward reducing my invention to practice, and on August 27, 2001, filed the present patent application.

14.   All acts set forth herein and/or relied upon for the purpose of establishing invention prior to June 28, 2001 were carried out in the United States.

15.   I declare that all statements made herein of my knowledge are true and all statements made on information and belief are believed to be true. These statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both under § 1001 of Title 18 of the United States Code. I understand that such willful false statements may jeopardize the validity of the application or any patent issuing therefrom.

Date: 13 July, 2005   _Jeffrey S. Weaver_

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